REMARKS

By this amendment, applicants have added claims 24 - 30 to more specifically define the invention currently set forth in the claims, especially claim 8.

Claims 1, 2, 5 - 8, 10, 11 and 21 - 23 stand rejected under 35 USC 103(a) as being unpatentable over United States Patent No. 3,935,632 to Maxson in view of United States Patent No. 6,184,261 to Biby et al. Applicants traverse this rejection and request reconsideration thereof.

The present invention relates to a method for thermally insulating an enclosure and to an installation containing a thermal insulant for an enclosure. Broadly, the present invention relates to insulation of a first enclosure placed in a second enclosure. The enclosures can consist of a string of tubings intended for transportation of a petroleum effluent, placed in another pipe, from a well for example. Several thermal insulation techniques are currently known. The string can be insulated by using tubings comprising an insulating material deposited or fastened outside the tubings. This method is very expensive and the tubings are difficult to handle. The annulus can also be filled with a more or less insulating fluid, gelled gas oil, or rigid foam manufactured in situ. However, liquids are not very good insulants, gels are delicate to use in operation and not very temperature stable, while manufacture of rigid foams is difficult to control and sending them into the annulus blocks the tubing string in the well, thus preventing complete withdrawal of the string.

The method of the present invention comprising filling a volume defined by the space contained between a first enclosure interior to a second enclosure with vegetable foam particles. Thus, the installation comprises a first enclosure placed in a second enclosure and is characterized in that the space between the enclosures

comprises a volume of vegetable foam particles used as a thermal insulant. Such is neither disclosed nor suggested by Maxson and/or Biby et al.

The patent to Maxson discloses a method of preparing an insulated negative buoyancy conduit wherein a jacket is placed around the conduit and an insulating material comprising a porous filler and a resin-forming composition is positioned in the annulus between the jacket and the conduit. As more specifically described at column 2, lines 30 - 32 of Maxson, the insulation material is a light-weight material consisting of a low density porous filler integrally cast and embedded in resin 16. As described at column 2, lines 32 - 34 of Maxson, the insulation material has high strength. Clearly, what is disclosed in Maxson is not the use of particles of any kind, but of a rigid resin material having a porous filler. Accordingly, the Maxson patent teaches away from the use of particles, especially vegetable foam particles, for thermal insulation.

Moreover, according to Maxson, the insulation material is resistant to water absorption. See, column 1, lines 54 - 56 and column 2, lines 32 - 34 of Maxson. This teaches away from the use of vegetable foam particles which are not resistant to water absorption. As more specifically set forth in claims 3, 4, 9 and 28, the vegetable foam particles of the present invention can be at least partially solubilized by an aqueous fluid to enable the first enclosure to be freely pulled from the second enclosure.

The patent to Biby et al discloses a foam that is the extrudate of a mixture of a biodegradable polymer, starch, talc, and a blowing agent. It is disclosed that the foam is water-resistant and in some variations waterproof making it an effective packing material. Thus, the foam of Biby et al is one which can be used as a loose-fill packing material to ship various industrial and household products. See, column

1, lines 19 - 20 of Biby et al. The Biby et al patent contains absolutely no disclosure of any thermal insulation characteristics of the foam. There is absolutely no suggestion in Biby et al that the foam should be used for anything other than loose-fill packing material. Certainly, there is no suggestion in Biby et al or in Maxson that the foam of Biby et al should be used for a pipe insulating jacket. In fact, it is submitted the teachings of Biby et al and Maxson are inapposite since it appears the porous filler of Maxson is integrally cast and embedded in resin and is intended to be water resistant. Accordingly, it is submitted there is no suggestion to combine the teachings of Maxson and Biby et al.

Claims 1, 3, 4 and 9 stand rejected under 35 USC 103(a) as being unpatentable over Maxson in view of United States Patent No. 5,272,181 to Boehmer et al. Applicants traverse this rejection and request reconsideration thereof.

The Boehmer et al patent discloses biodegradable expanded foam material prepared by combining a starch-graft copolymer with grain based starch containing materials and 15 to 25% water and expanding the mixture either with or without blowing agents. The types of products which can be formed by the expanded foam material are described at column 3, lines 21 - 29 of Boehmer et al as follows:

> The expected products of the invention include a wide array of foamed articles, including loose fill packing, foam sheeting, rigid foam blocks, and miscellaneous thermoformed products such as egg containers, food trays, plates, and food containers. In addition, the formulation is useful for making floor swiping compounds, and may be used for packaging hazardous waste materials which are to undergo a degradative treatment process.

All of the examples of Boehmer et al relate to the formation of loose-fill packaging materials, similar to those popularly known as "foam peanuts," and a foam sheet for use in packaging.

Clearly, the Boehmer et al patent is mainly directed to packing and packaging materials and provides absolutely no suggestion that the biodegradable expanded foam material can be used as an insulant for a pipe insulating jacket. Likewise, there is no suggestion in Maxson and that the material of Boehmer et al should be used in the pipe insulating jacket.

Clearly, neither Maxson nor Boehmer et al would have suggested filling the space contained between a first enclosure interior to a second enclosure with vegetable foam particles. Accordingly, the proposed combination of Heckel et al and Boehmer et al would not have suggested the presently claimed invention.

Claims 7 and 8 stand rejected under 35 USC 103(a) as being unpatentable over Maxson in view of Boehmer et al "and in further view of applicant's admitted prior art (specification page 2)." Applicants traverse this rejection and request reconsideration thereof.

The deficiencies of the proposed combination of Maxson and Boehmer et al are noted above.

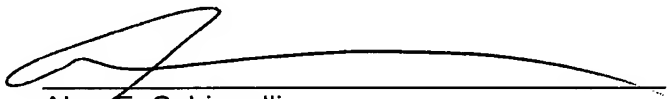
While it may be common to have to pull a whole string of production tubings during production of a well, it is certainly not common to use vegetable foam materials as a thermal insulant in the space contained between enclosures in general or enclosures which consist of a string of tubings intended for transportation of a petroleum effluent. Accordingly, for at least the reasons above, claims 7 and 8 are patentable over the proposed combination of Maxson, Boehmer et al and "applicant's admitted prior art."

In view of the foregoing amendments and remarks, favorable reconsideration and allowance of all of the claims now in the application are requested.

To the extent necessary, applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Case: 612.41024X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP



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